

C7 36. (New) The process of Claim 32 wherein the hydrophobic diol chain extender is selected from the group consisting of 1,10-decanediol, 1,12-dodecanediol, 1,12-octadecanediol, dimer fatty acid diol, 1,2-octanediol, 1,2-dodecanediol, 1,2-hexadecanediol, 1,2-octadecanediol, 1,2-tetradecanediol, 4,4-isopropylidene dicyclohexanol, 4,8-bis(hydroxymethyl)tricyclo[5,2,1,0^{2,6}]decane, 1,4:3,6-dianhydro-D-mannitol, 1,4:3,6-dianhydro-D-sorbitol, 1,16-hexadecanediol, biosphenol A, monofatty acid esters of glycerol with fatty acids containing up to 22 carbon atoms, and mixtures thereof.

REMARKS

Favorable reconsideration and allowance of the claims in view of the preceding amendments and the following remarks are respectfully requested.

Claims 1 and 12-30 are pending. By this Amendment, Claims 1, 19, 25 and 26 have been amended, new Claims 31-36 have been added and Claims 12, 20 and 27 have been cancelled. Applicants attach Appendix A hereto containing a marked up version of the revised paragraphs of the specification. Applicants also attach as Appendix B a marked up version of original Claims 1, 19, 25 and 26. Finally, the Abstract is also attached as a separate sheet, numbered as page 29.

The specification has been amended in a manner believed to obviate the Examiner's objection to the disclosure. Accordingly, withdrawal of the objection is respectfully requested.

The Examiner has rejected Claim 25 under the second paragraph of 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Specifically, the Examiner maintains "that it is unclear whether applicants intend that the final laminate article or product recited therein be 'moisture-tackifiable'." Applicants have amended Claim 25 for clarification. Accordingly, withdrawal of the rejection of Claim 25 under the second paragraph of 35 U.S.C. § 112 is respectfully requested.

The Examiner has rejected Claims 1 and 12-15 under 35 U.S.C. §102(b) as being anticipated by Cooper et al. U.S. Patent No. 3,462,342 ("Cooper et al.") or Miller et al. U.S. Patent No. 5,552,511 ("Miller et al."). According to the Examiner, Cooper et al. and Miller et al. both disclose that it is known to adhere two substrates by placing between them a water soluble hotmelt adhesive.

Nowhere does Cooper et al. disclose or suggest a process for the production of at least two-ply paper laminates employing "a hotmelt adhesive having a solubility in water at 20°C of at least 3% by weight and a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C" as generally recited in amended Claim 1. As noted in the specification, applicants' hotmelt adhesive remain sufficiently soluble in water at elevated temperatures, having an upper cloud point of at least 60°C, which is preferable in the recycling of bonded paper layers (see specification page 21, line 22 to page 22, line 26).

Rather, Cooper et al. disclose hotmelt applicable thermoplastic adhesives, which become tacky upon moistening. At no point does Cooper et al. disclose or even appreciate that a hotmelt adhesive having a solubility in water at 20°C of at least 3% by weight and a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C is desirable in the formation of a two-ply paper laminates. In lacking any disclosure or suggestion of employing the specifically recited hotmelt adhesive in the claimed process for the production of at least two-ply paper laminates, Cooper et al. fail to anticipate or render obvious the subject matter of any of amended Claims 1 and 12-15.

Miller et al. likewise nowhere disclose or suggest the specifically recited hotmelt adhesive in amended Claim 1, namely, a hotmelt adhesive having a solubility of the hotmelt adhesive in water at 20°C is at least 3% by weight and a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C. Rather, Miller et al. disclose a process for forming laminates using water dispersible adhesives. It is not seen where Miller et al. provides any disclosure, suggestion or even a remote hint of the specifically recited hotmelt adhesive in amended Claim 1. Unquestionably, then, amended Claims 1 and 12-15 recite novel and nonobvious subject matter relative to Miller et al.

The Examiner has rejected Claims 1, 12-16 and 19-30 under 35 U.S.C. §102(b) as anticipated by Sirota et al. U.S. Patent No. 3,753,944 ("Sirota et al."). The Examiner asserts that Sirota et al. disclose that a laminated hygienic paper product may be formed by utilizing a polyethylene oxide adhesive.

Nowhere does Sirota et al. disclose or suggest "a hotmelt adhesive having a solubility in water at 20°C of at least 3% by weight and a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C" as generally recited in amended Claim 1. Nor does Sirota et al. disclose or suggest "a hotmelt adhesive selected from the group consisting of polyalkylene glycols having a molecular weight of at least 1,000 and a solubility in water at 20°C of at least 3% by weight and nonionic polyurethanes having a molecular weight (M_n) of at least 2,000, wherein a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C" as generally recited in amended Claims 19 and 26.

Rather, Sirota et al. only discloses water-soluble hotmelt adhesive compositions obtained from high molecular weight polyethylene oxides suitable for pick-up and tail tying of wound paper web products. At no point is there any disclosure or suggestion in Sirota et al. of the specifically claimed hotmelt adhesive. Accordingly, amended Claims 1, 12-16 and 19-30 are believed to be patentable over Sirota et al.

The Examiner has rejected Claims 1, 12-15, 17-23 and 25 under 35 U.S.C. §102(b) as anticipated by Japanese CHEM KK reference J5 4001-347 ("Japanese CHEM KK"). According to the Examiner, the Japanese CHEM KK abstract discloses the use of a water-soluble polyurethane resin as a hotmelt adhesive.

However, as with Cooper et al., Miller et al., and Sirota et al. discussed above, there is likewise no disclosure or suggestion in Japanese CHEM KK of the specifically recited hotmelt adhesive in amended Claims 1 and 19, namely, that the solubility of the hotmelt adhesive in water at 20°C is at least 3% by weight and a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C.

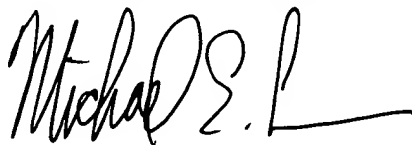
Rather, Japanese CHEM KK discloses a hotmelt adhesive cloth, which is a polyester or acrylic fiber coated with a water soluble polyurethane resin. It is not seen in the Japanese CHEM KK reference of any disclosure or suggestion of the claimed hotmelt adhesive having a solubility in water at 20°C of at least 3% by weight and a 0.3% by weight solution of the hotmelt adhesive in water has an upper cloud point of at least 60°C. Accordingly, amended Claims 1, 12-15, 17-23 and 25 are believed to be patentable over Japanese CHEM KK.

Finally, the statement in paragraph 9 of the Office Action that "all of the essential limitations (to include the properties and characteristics of the adhesive (e.g. solubility in water of at least 3% by weight)) of the claims as indicated are seen to be satisfied by each of these respective references" is *wholly unsupported* and cannot possibly serve as a basis for the rejections by the Examiner. If it is the Examiner's position that Cooper et al., Miller et al., Sirota et al. and Japanese Chem KK each disclose such limitations, the Examiner is respectfully requested to identify with particularity (by column and line number for each reference) where in each of the references such limitations can be found.

It is respectfully submitted that new Claims 31-36 are also believed to be in condition for allowance and patentably distinct over the art of record.

For the foregoing reasons, amended Claims 1, 13-19, 21-26 and 28-30 and new Claims 31-36 as presented herein are believed to be in condition for immediate allowance. Such early and favorable action is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael E. Carmen". The signature is fluid and cursive, with a long horizontal stroke at the end.

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